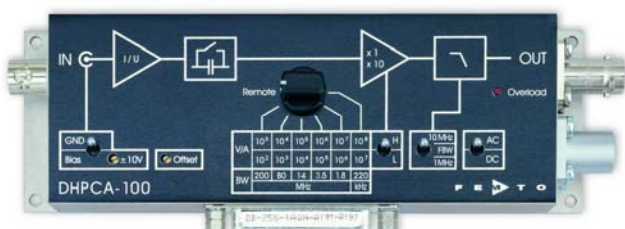
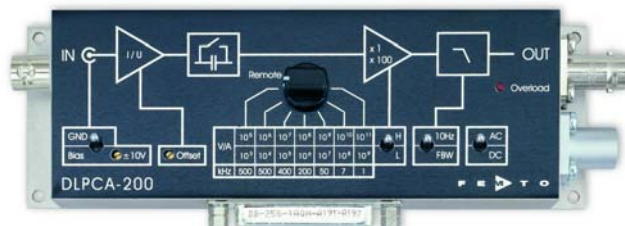


FEMTO Highlights Spring 2009

Variable Gain Current Amplifiers

Model DLPCA-200 – The All-Rounder

- Variable gain from 10^3 to 10^{11} V/A
- Detection of sub-pA to 10 mA
- Bandwidth DC to 500 kHz
- Rise time down to 700 ns
- Low noise down to $4 \text{ fA}/\sqrt{\text{Hz}}$
- THE all-purpose current amplifier



Model DHPCA-100 – For Higher Speed

- Bandwidth DC up to 200 MHz
- Rise time down to 1.8 ns
- Variable gain from 10^2 to 10^8 V/A
- Built-in signal filters for reduced broadband noise

Model DDPCA-300 – For Highest Sensitivity

- Very low noise: min. $0.2 \text{ fA}/\sqrt{\text{Hz}}$
- Variable gain from 10^4 to 10^{13} V/A
- > 240 dB dynamic range for sub-fA to mA measurements
- Very low drift < 1 fA
- Easy to use: convert your standard voltmeter to a high-end sub femto ampere meter



	DLPCA-200	DHPCA-100	DDPCA-300
Gain Range	$10^3 - 10^{11}$ V/A	$10^2 - 10^8$ V/A	$10^4 - 10^{13}$ V/A
Max. Bandwidth	DC to 500 kHz	DC to 200 MHz	DC to 400 Hz
Min. Rise Time	700 ns	1.8 ns	800 μ s
Min. Noise	$4 \text{ fA}/\sqrt{\text{Hz}}$	$55 \text{ fA}/\sqrt{\text{Hz}}$	$0.2 \text{ fA}/\sqrt{\text{Hz}}$
Main Differentiator	broad application range	MHz speed	sub femto ampere sensitivity
Common Features	<ul style="list-style-type: none"> - manual control and digital interface - adjustable offset and bias voltage - compact design for use close to the signal source - extremely well shielded housing to avoid noise pick-up 		

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Lock-In Amplifier Modules

Series LIA-MV-150-S

- Ultra compact design
- Adjustable sensitivity, phase and time constant
- Local control and remote interface
- Attractive price
- For spectroscopy, laser stabilization and space limited applications



Photoreceivers

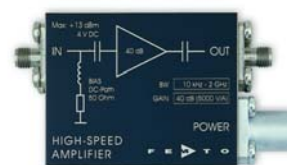
Series HCA-S-400M

- Bandwidth DC to 400 MHz
- Detection limit of 4 μW at 1 ns rise time
- Low noise amplifier with 5×10^3 V/A gain
- Wavelength range 320 to 1700 nm
- For high speed optical measurements

GHz Voltage Amplifiers

Series HSA

- Bandwidth up to 2 GHz
- Gain 20 dB up to 60 dB
- Integrated bias-T for easy operation with photodiodes
- Ultra compact HF package
- Designed for high speed photodiodes, APDs and MCPs



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